

JUL 08 2002

520 REG'D PCT/PCT

08 JUL 2002

CERTIFICATE OF MAILING

1 hereby certify that this correspondence is being deposited with the United States  
 Postal Service as first class mail in an envelope addressed to: Commissioner of  
 Patents and Trademarks, Arlington, VA 22202, on the date appearing below.

ELI LILLY AND COMPANY

By Linda M. Dunham Date July 2, 2002

**PATENT APPLICATION**

Applicants : Gerald Wayne Becker, *et al.*)  
Serial No. : 10/018,383 )  
Filed : October 30, 2001 )  
For : AMYLOID PRECURSOR PROTEIN Confirmation No.:  
      PROTEASE AND RELATED ) 7903  
      NUCLEIC ACID COMPOUNDS )  
Docket No. : X-11600 )

## **RESPONSE TO NOTIFICATION OF DEFECTIVE RESPONSE**

## Assistant Commissioner for Patents

Arlington, VA 22202

## Attention: Box Sequence

Sir:

This is in response to a "Notification of Defective Response" dated June 13, 2002, noting the absence of an acceptable Sequence Listing.

Enclosed herewith are:

- 1) a copy of the Notification;
- 2) a computer-readable copy of the Sequence Listing pursuant to 37 C.F.R. § 1.821(e);
- 3) a paper copy of the Sequence Listing pursuant to 37 C.F.R. § 1.821(c);

# DISK TO STIC

DATE:



Serial No. 10/018,383

- 4) an affirmation pursuant to 37 C.F.R. § 1.821(f);
- 5) a Supplemental Preliminary Amendment amending the specification to include the sequence listing;
- 6) an Information Disclosure Statement; and
- 7) a Form PTO-1449 (modified).

Respectfully submitted,

*Paula K. Davis*

Paula K. Davis  
Agent for Applicants  
Registration No. 47,517  
Phone: 317-433-3422

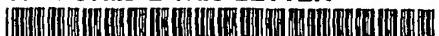
Eli Lilly and Company  
Patent Division  
P.O. Box 6288  
Indianapolis, Indiana 46206-6288

02 July 2002



PATENT &amp; TRADEMARK OFFICE

Commissioner for Patents, Box PCT  
 United States Patent and Trademark Office  
 Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/018,383	Gerald Wayne Becker	X-11600
INTERNATIONAL APPLICATION NO.		
PCT/US00/06707		
I.A. FILING DATE	PRIORITY DATE	
05/09/2000	05/11/1999	
<b>CONFIRMATION NO. 7903</b>		
<b>371 FORMALITIES LETTER</b>		
 OC000000008278122		

Date Mailed: 06/13/2002

### NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- U.S. Basic National Fee
- Priority Document
- Assignee Statement
- Biochemical Sequence Diskette
- Biochemical Sequence Listing
- Copy of IPE Report
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Oath or Declaration
- Preliminary Amendments

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

**Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).**

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):
  - A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."

- The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
- **APPLICANT MUST PROVIDE:**
  - An initial or substitute computer readable form (CRF) of the "Sequence Listing."
  - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
- For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:
  - For Rules Interpretation, call (703) 308-4216
  - To Purchase PatentIn Software, call (703) 306-2600
  - For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov
- A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
- The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice MUST be returned with the response.*

VONDA M WALLACE

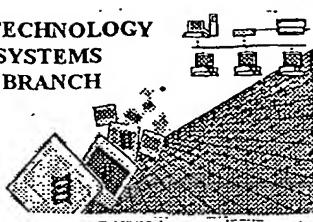
Telephone: (703) 305-3736

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/018,383	PCT/US00/06707	X-11600



BIOTECHNOLOGY  
SYSTEMS  
BRANCH



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/018,383  
Source: PUR/10  
Date Processed by STIC: 6/4/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

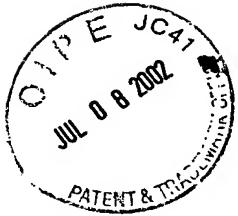
TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, stg ggt gtc sag Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2000 2nd Street, N.W., Washington, D.C. 20591-0002
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



PCT10

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/10/018,383**

DATE: 06/04/2002  
TIME: 14:56:06

**Input Set : A:\X11600.ST25.txt**  
**Output Set: N:\CRF3\06042002\J018383.raw**

Does Not Comply  
Corrected Diskette Needed

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002  
TIME: 14:56:06

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62	gcc	aac	cgc	acg	gcc	ctc	tcc	ccg	gac	ctg	ctg	gca	cag	ggc	aac	gca	339
63	Ala	Asn	Arg	Thr	Ala	Leu	Phe	Pro	Asp	Leu	Leu	Ala	Gln	Gly	Asn	Ala	
64	90					95				100			105				
66	tcc	ctg	agg	ctg	cag	cgc	gtg	cgt	gtg	gac	gag	ggc	agc	ttc	acc		387
67	Ser	Leu	Arg	Leu	Gln	Arg	Val	Arg	Val	Ala	Asp	Glu	Gly	Ser	Phe	Thr	
68						110				115			120				
70	tgc	ttc	gtg	agc	atc	cg	gat	tcc	ggc	agc	gct	gcc	gtc	agc	ctg	cag	435
71	Cys	Phe	Val	Ser	Ile	Arg	Asp	Phe	Gly	Ser	Ala	Ala	Val	Ser	Leu	Gln	
72						125				130			135				
74	gtg	gcc	gtc	ccc	tac	tcg	aag	ccc	agc	atg	acc	ctg	gag	ccc	aac	aag	483
75	Val	Ala	Ala	Pro	Tyr	Ser	Lys	Pro	Ser	Met	Thr	Leu	Glu	Pro	Asn	Lys	
76						140				145			150				
78	gac	ctg	cgg	cca	ggg	gac	acg	gtg	acc	atc	acg	tgc	tcc	agc	tac	cag	531
79	Asp	Leu	Arg	Pro	Gly	Asp	Thr	Val	Thr	Ile	Thr	Cys	Ser	Ser	Tyr	Gln	
80						155				160			165				
82	ggc	tac	cct	gag	gtg	gag	gtg	tcc	tgg	cag	gat	ggg	cag	gg	gtg	ccc	579
83	Gly	Tyr	Pro	Glu	Ala	Glu	Val	Phe	Trp	Gln	Asp	Gly	Gln	Gly	Val	Pro	
84	170					175				180			185				
86	ctg	act	ggc	aac	gtg	acc	acg	tcg	cag	atg	gcc	aac	gag	cag	ggc	tgg	627
87	Leu	Thr	Gly	Asn	Val	Thr	Ser	Gln	Met	Ala	Asn	Glu	Gln	Gly	Ileu		
88						190				195			200				
90	ttt	gat	gtg	cac	agc	atc	ctg	cg	gtg	gtg	ctg	gg	gca	aat	ggc	acc	675
91	Phe	Asp	Val	His	Ser	Ile	Leu	Arg	Val	Val	Leu	Gly	Ala	Asn	Gly	Thr	
92						205				210			215				
94	tac	agc	tgc	ctg	gtg	cgc	aac	ccc	gtg	ctg	cag	cat	gat	g	ac		723
95	Tyr	Ser	Cys	Leu	Val	Arg	Asn	Pro	Val	Leu	Gln	Gln	Asp	Ala	His	Ser	
96						220				225			230				
98	tct	gtc	acc	atc	aca	ccc	cag	aga	agc	ccc	aca	gga	gcc	gtg	gag	gtc	771
99	Ser	Val	Thr	Ile	Thr	Pro	Gln	Arg	Ser	Pro	Thr	Gly	Ala	Val	Glu	Val	
100						235				240			245				
102	cag	gtc	cct	gag	gac	ccg	gtg	gtg	ggc	acc	atc	gtc	gg	acc	acc		819
103	Gln	Val	Pro	Glu	Asp	Pro	Val	Val	Ala	Leu	Val	Gly	Thr	Asp	Ala	Thr	
104	250					255				260			265				
106	ctg	cgc	tgc	tcc	tcc	ccc	gag	cct	ggc	tcc	atc	agc	ctg	gca	cag	ctc	867
107	Leu	Arg	Cys	Ser	Phe	Ser	Pro	Glu	Pro	Gly	Phe	Ser	Leu	Ala	Gln	Ileu	525
108						270				275			280				
110	aac	ctc	atc	tgg	cag	ctg	aca	gac	acc	aaa	cag	ctg	gtg	cac	atg	tgc	8915D NO: 2
111	Asn	Leu	Ile	Trp	Gln	Leu	Thr	Asp	Thr	Lys	Gln	Leu	Val	His	Ser	Phe	LENGTH: 1534
112						285				290			295				
114	acc	gaa	ggc	cgg	gac	cag	ggc	agc	gcc	tat	gcc	aac	cgc	atc	gtc	13> OH963:ISH, HOMO sapien	
115	Thr	Glu	Gly	Arg	Asp	Gln	Gly	Ser	Ala	Tyr	Ala	Asn	Arg	Thr	Ala	Leu	FEATURE:
116						300				305			310				
118	tcc	ccg	gac	ctg	ctg	gca	caa	ggc	aat	gca	tcc	ctg	agg	ctg	cag	cgc	1011P LENGTH: (42)
119	Phe	Pro	Asp	Leu	Leu	Ala	Gln	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Gln	Arg	OTHER INFORMATION: 1
120						315				320			325				
122	gtg	cgt	gtg	gac	gag	ggc	agc	tcc	acc	tgc	gtg	agc	atc	ccgg			1059: Gly, Asp, Gly
123	Val	Arg	Val	Ala	Asp	Glu	Gly	Ser	Phe	Thr	Cys	Phe	Val	Ser	Ile	Arg	ASP INT. Cys or Phe
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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002  
TIME: 14:56:06

Input Set : A:\X11600.ST25.txt  
Output Set: N:\CRF3\06042002\J018383.raw

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126	gat ttc ggc agc gct gcc gtc agc ctg cag gtg gcc gct ccc tac tcg				1107
127	Asp Phe Gly Ser Ala Ala Val Ser Leu Gln Val Ala Ala Pro Tyr Ser				
128	350	355	360		
130	aag ccc agc atg acc ctg gag ccc aac aag gac ctg cgg cca ggg gac				1155
131	Lys Pro Ser Met Thr Leu Glu Pro Asn Lys Asp Leu Arg Pro Gly Asp				
132	365	370	375		
134	acg gtg acc atc acg tgc tcc agc tac cgg ggc tac cct gag gct gag				1203
135	Thr Val Thr Ile Thr Cys Ser Ser Tyr Arg Gly Tyr Pro Glu Ala Glu				
136	380	385	390		
138	gtg ttc tgg cag gat ggg cag ggt gtg ccc ctg act ggc aac gtg acc				1251
139	Val Phe Trp Gln Asp Gly Gln Gly Val Pro Leu Thr Gly Asn Val Thr				
140	395	400	405		
W-->	142 acg tcg cag atg gcc aac gag cag ggc ttg ttt nnn nnn nnn nnn nnn				1299
W-->	143 Thr Ser Gln Met Ala Asn Glu Gln Gly Leu Phe Xaa Xaa Xaa Xaa Xaa				
144	410	415	420	425	
W-->	146 nnn				1347
W-->	147 Xaa				
148	430	435	440		
W-->	150 nnn nnn nnn nnn nnn nnn gat gcg cac ggc tct gtc acc atc aca ggg				1395
W-->	151 Xaa Xaa Xaa Xaa Xaa Asp Ala His Gly Ser Val Thr Ile Thr Gly				
152	445	450	455		
154	cag cct atg aca ttc ccc cca gag gcc ctg tgg gtg acc gtg ggg ctg				1443
155	Gln Pro Met Thr Phe Pro Pro Glu Ala Leu Trp Val Thr Val Gly Leu				
156	460	465	470		
158	tct gtc tgt ctg att gca ctg ctg gtg gcc ctg gct ttc gtg tgc tgg				1491
159	Ser Val Cys Leu Ile Ala Leu Leu Val Ala Leu Ala Phe Val Cys Trp				
160	475	480	485		
162	aga aag atc aaa cag agc tgt gag gag gag aat gca gga gct gag gac				1539
163	Arg Lys Ile Lys Gln Ser Cys Glu Glu Asn Ala Gly Ala Glu Asp				
164	490	495	500		
166	cag gat ggg gag gga gaa ggc tcc aag aca gcc ctg cag cct ctg aaa				1587
167	Gln Asp Gly Glu Gly Ser Lys Thr Ala Leu Gln Pro Leu Lys				
168	510	515	520		
170	cac tct gac agc aaa gaa gat gat gga caa gaa ata gcc tga				1629
171	His Ser Asp Ser Lys Glu Asp Asp Gly Gln Glu Ile Ala				
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187					
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368 <223> OTHER INFORMATION: (420)..(421)

Chr, file

369 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

370 <220> FEATURE:

371 <221> NAME/KEY: misc\_feature

372 <222> LOCATION: (420)..(421)

373 <223> OTHER INFORMATION: (420)..(421)

Chr, file

374 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

375 <220> FEATURE:

376 <221> NAME/KEY: misc\_feature

377 <222> LOCATION: (420)..(421)

378 <223> OTHER INFORMATION: (420)..(421)

Chr, file

379 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

380 <220> FEATURE:

381 <221> NAME/KEY: misc\_feature

382 <222> LOCATION: (420)..(421)

383 <223> OTHER INFORMATION: (420)..(421)

Chr, file

384 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

385 <220> FEATURE:

386 <221> NAME/KEY: misc\_feature

387 <222> LOCATION: (420)..(421)

388 <223> OTHER INFORMATION: (420)..(421)

Chr, file

389 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

390 <220> FEATURE:

391 <221> NAME/KEY: misc\_feature

392 <222> LOCATION: (420)..(421)

393 <223> OTHER INFORMATION: (420)..(421)

Chr, file

394 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

395 <220> FEATURE:

396 <221> NAME/KEY: misc\_feature

397 <222> LOCATION: (420)..(421)

398 <223> OTHER INFORMATION: (420)..(421)

Chr, file

399 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

400 <220> FEATURE:

401 <221> NAME/KEY: misc\_feature

402 <222> LOCATION: (420)..(421)

403 <223> OTHER INFORMATION: (420)..(421)

Chr, file

404 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

405 <220> FEATURE:

406 <221> NAME/KEY: misc\_feature

407 <222> LOCATION: (420)..(421)

408 <223> OTHER INFORMATION: (420)..(421)

Chr, file

409 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

410 <220> FEATURE:

411 <221> NAME/KEY: misc\_feature

412 <222> LOCATION: (420)..(421)

413 <223> OTHER INFORMATION: (420)..(421)

Chr, file

414 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

415 <220> FEATURE:

416 <221> NAME/KEY: misc\_feature

417 <222> LOCATION: (420)..(421)

418 <223> OTHER INFORMATION: (420)..(421)

Chr, file

419 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

420 <220> FEATURE:

421 <221> NAME/KEY: misc\_feature

422 <222> LOCATION: (420)..(421)

423 <223> OTHER INFORMATION: (420)..(421)

Chr, file

424 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

425 <220> FEATURE:

426 <221> NAME/KEY: misc\_feature

427 <222> LOCATION: (420)..(421)

428 <223> OTHER INFORMATION: (420)..(421)

Chr, file

429 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

430 <220> FEATURE:

431 <221> NAME/KEY: misc\_feature

432 <222> LOCATION: (420)..(421)

433 <223> OTHER INFORMATION: (420)..(421)

Chr, file

434 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

435 <220> FEATURE:

436 <221> NAME/KEY: misc\_feature

437 <222> LOCATION: (420)..(421)

438 <223> OTHER INFORMATION: (420)..(421)

Chr, file

439 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

440 <220> FEATURE:

441 <221> NAME/KEY: misc\_feature

442 <222> LOCATION: (420)..(421)

443 <223> OTHER INFORMATION: (420)..(421)

Chr, file

444 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

445 <220> FEATURE:

446 <221> NAME/KEY: misc\_feature

447 <222> LOCATION: (420)..(421)

448 <223> OTHER INFORMATION: (420)..(421)

Chr, file

449 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

450 <220> FEATURE:

451 <221> NAME/KEY: misc\_feature

452 <222> LOCATION: (420)..(421)

453 <223> OTHER INFORMATION: (420)..(421)

Chr, file

454 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

455 <220> FEATURE:

456 <221> NAME/KEY: misc\_feature

457 <222> LOCATION: (420)..(421)

458 <223> OTHER INFORMATION: (420)..(421)

Chr, file

459 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

460 <220> FEATURE:

461 <221> NAME/KEY: misc\_feature

462 <222> LOCATION: (420)..(421)

463 <223> OTHER INFORMATION: (420)..(421)

Chr, file

464 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

465 <220> FEATURE:

466 <221> NAME/KEY: misc\_feature

467 <222> LOCATION: (420)..(421)

468 <223> OTHER INFORMATION: (420)..(421)

Chr, file

469 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

470 <220> FEATURE:

471 <221> NAME/KEY: misc\_feature

472 <222> LOCATION: (420)..(421)

473 <223> OTHER INFORMATION: (420)..(421)

Chr, file

474 , Ser, Glu, Asp, Gln, Tyr, Trp, Cys, or Phe

475 <220> FEATURE:

476 <221> NAME/KEY: misc\_feature

477 <222> LOCATION: (420)..(421)

478 <223> OTHER INFORMATION: (420)..(421)

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002  
TIME: 14:56:06

Input Set : A:\X11600.ST25.txt  
Output Set: N:\CRF3\06042002\J018383.raw

190 <221> NAME/KEY: misc\_feature  
 191 <222> LOCATION: (422)..(422)  
 192 <223> OTHER INFORMATION: The 'Xaa' at location 422 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon, *name*  
 193 Tyr, Trp, Cys, or Phe. *new*  
 196 <220> FEATURE:  
 197 <221> NAME/KEY: misc\_feature  
 198 <222> LOCATION: (423)..(423)  
 199 <223> OTHER INFORMATION: The 'Xaa' at location 423 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 200 Tyr, Trp, Cys, or Phe.  
 203 <220> FEATURE:  
 204 <221> NAME/KEY: misc\_feature  
 205 <222> LOCATION: (424)..(424)  
 206 <223> OTHER INFORMATION: The 'Xaa' at location 424 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 207 Tyr, Trp, Cys, or Phe. *new*  
 210 <220> FEATURE:  
 211 <221> NAME/KEY: misc\_feature  
 212 <222> LOCATION: (425)..(425)  
 213 <223> OTHER INFORMATION: The 'Xaa' at location 425 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 215 Tyr, Trp, Cys, or Phe. *new*  
 217 <220> FEATURE:  
 218 <221> NAME/KEY: misc\_feature  
 219 <222> LOCATION: (426)..(426)  
 220 <223> OTHER INFORMATION: The 'Xaa' at location 426 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 222 Tyr, Trp, Cys, or Phe. *new*  
 224 <220> FEATURE:  
 225 <221> NAME/KEY: misc\_feature  
 226 <222> LOCATION: (427)..(427)  
 227 <223> OTHER INFORMATION: The 'Xaa' at location 427 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 229 Tyr, Trp, Cys, or Phe. *new*  
 231 <220> FEATURE:  
 232 <221> NAME/KEY: misc\_feature  
 233 <222> LOCATION: (428)..(428)  
 234 <223> OTHER INFORMATION: The 'Xaa' at location 428 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 236 Tyr, Trp, Cys, or Phe. *new*  
 238 <220> FEATURE:  
 239 <221> NAME/KEY: misc\_feature  
 240 <222> LOCATION: (429)..(429)  
 241 <223> OTHER INFORMATION: The 'Xaa' at location 429 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile

242 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 243 Tyr, Trp, Cys, or Phe.  
 245 <220> FEATURE:  
 246 <221> NAME/KEY: misc\_feature

242 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 243 Tyr, Trp, Cys, or Phe.  
 245 <220> FEATURE:  
 246 <221> NAME/KEY: misc\_feature

242 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 243 Tyr, Trp, Cys, or Phe.  
 245 <220> FEATURE:  
 246 <221> NAME/KEY: misc\_feature  
 247 <222> LOCATION: (434)..(436)  
 248 <223> SOURCE: DDBJ/EMBL/GenBank  
 249 <224> COMMENTS:  
 250 <225> TITLE: DDBJ/EMBL/GenBank  
 251 <226> SUBMISSION\_ID: 14543742  
 252 <227> AUTHOR: DDBJ/EMBL/GenBank  
 253 <228> DATE: 2002-01-10  
 254 <229> ORGANISM: E. coli K12  
 255 <230> TAXON\_ID: 511544  
 256 <231> MOL\_TYPE: plasmid  
 257 <232> SUBMISSION\_DATE: 2002-01-10  
 258 <233> COMMENT: This file contains the sequence information for the

259 Ttr, Tle  
 260 , Met, Glu, Asp, Gly,  
 261 Tyr, Trp, Cys, or Phe.  
 262 <220> FEATURE:  
 263 <221> NAME/KEY: misc\_feature  
 264 <222> LOCATION: (436)..(438)  
 265 <223> SOURCE: DDBJ/EMBL/GenBank  
 266 <224> COMMENTS:  
 267 <225> TITLE: DDBJ/EMBL/GenBank  
 268 <226> SUBMISSION\_ID: 14543742  
 269 <227> AUTHOR: DDBJ/EMBL/GenBank  
 270 <228> DATE: 2002-01-10  
 271 <229> ORGANISM: E. coli K12  
 272 <230> TAXON\_ID: 511544  
 273 <231> MOL\_TYPE: plasmid  
 274 <232> SUBMISSION\_DATE: 2002-01-10  
 275 <233> COMMENT: This file contains the sequence information for the

276 Ttr, Tle  
 277 , Met, Glu, Asp, Gly,  
 278 Tyr, Trp, Cys, or Phe.  
 279 <220> FEATURE:  
 280 <221> NAME/KEY: misc\_feature  
 281 <222> LOCATION: (437)..(439)  
 282 <223> SOURCE: DDBJ/EMBL/GenBank  
 283 <224> COMMENTS:  
 284 <225> TITLE: DDBJ/EMBL/GenBank  
 285 <226> SUBMISSION\_ID: 14543742  
 286 <227> AUTHOR: DDBJ/EMBL/GenBank  
 287 <228> DATE: 2002-01-10  
 288 <229> ORGANISM: E. coli K12  
 289 <230> TAXON\_ID: 511544  
 290 <231> MOL\_TYPE: plasmid  
 291 <232> SUBMISSION\_DATE: 2002-01-10  
 292 <233> COMMENT: This file contains the sequence information for the

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/018,383

DATE: 06/04/2002  
TIME: 14:56:06

Input Set : A:\X11600.ST25.txt  
Output Set: N:\CRF3\06042002\J018383.raw

247 <222> LOCATION: (430)..(430)  
 248 <223> OTHER INFORMATION: The 'Xaa' at location 430 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 249 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 250 Tyr, Trp, Cys, or Phe.  
 252 <220> FEATURE:  
 253 <221> NAME/KEY: misc\_feature  
 254 <222> LOCATION: (431)..(431)  
 255 <223> OTHER INFORMATION: The 'Xaa' at location 431 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 256 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 257 Tyr, Trp, Cys, or Phe.  
 259 <220> FEATURE:  
 260 <221> NAME/KEY: misc\_feature  
 261 <222> LOCATION: (432)..(432)  
 262 <223> OTHER INFORMATION: The 'Xaa' at location 432 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 263 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 264 Tyr, Trp, Cys, or Phe.  
 266 <220> FEATURE:  
 267 <221> NAME/KEY: misc\_feature  
 268 <222> LOCATION: (433)..(433)  
 269 <223> OTHER INFORMATION: The 'Xaa' at location 433 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 270 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 271 Tyr, Trp, Cys, or Phe.  
 273 <220> FEATURE:  
 274 <221> NAME/KEY: misc\_feature  
 275 <222> LOCATION: (434)..(434)  
 276 <223> OTHER INFORMATION: The 'Xaa' at location 434 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 277 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 278 Tyr, Trp, Cys, or Phe.  
 280 <220> FEATURE:  
 281 <221> NAME/KEY: misc\_feature  
 282 <222> LOCATION: (435)..(435)  
 283 <223> OTHER INFORMATION: The 'Xaa' at location 435 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 284 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 285 Tyr, Trp, Cys, or Phe.  
 287 <220> FEATURE:  
 288 <221> NAME/KEY: misc\_feature  
 289 <222> LOCATION: (436)..(436)  
 290 <223> OTHER INFORMATION: The 'Xaa' at location 436 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 291 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,  
 292 Tyr, Trp, Cys, or Phe.  
 294 <220> FEATURE:  
 295 <221> NAME/KEY: misc\_feature  
 296 <222> LOCATION: (437)..(437)  
 297 <223> OTHER INFORMATION: The 'Xaa' at location 437 stands for Lys, Asn, Arg, Ser,  
 Thr, Ile  
 298 , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,

Please correct this  
error throughout sequence 200406040036/4402

299 Tyr, Trp, Cys, or Phe.  
301 <220> FEATURE:  
302 <221> NAME/KEY: misc\_feature  
303 <222> LOCATION: (438)..(438)

RAW SEQUENCE LISTING ERROR SUMMARY                   DATE: 06/04/2002  
PATENT APPLICATION: US/10/018, 383               TIME: 14:56:07

Input Set : A:\X11600.ST25.txt  
Output Set: N:\CRF3\06042002\J018383.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 1285,1286,1287,1288,1289,1290,1291,1292,1293,1294,1295,1296  
Seq#:1; N Pos. 1297,1298,1299,1300,1301,1302,1303,1304,1305,1306,1307,1308  
Seq#:1; N Pos. 1309,1310,1311,1312,1313,1314,1315,1316,1317,1318,1319,1320  
Seq#:1; N Pos. 1321,1322,1323,1324,1325,1326,1327,1328,1329,1330,1331,1332  
Seq#:1; N Pos. 1333,1334,1335,1336,1337,1338,1339,1340,1341,1342,1343,1344  
Seq#:1; N Pos. 1345,1346,1347,1348,1349,1350,1351,1352,1353,1354,1355,1356  
Seq#:1; N Pos. 1357,1358,1359,1360,1361,1362,1363,1364,1365  
Seq#:1; Xaa Pos. 421,422,423,424,425,426,427,428,429,430,431,432,433,434  
Seq#:1; Xaa Pos. 435,436,437,438,439,440,441,442,443,444,445,446,447  
Seq#:2; Xaa Pos. 421,422,423,424,425,426,427,428,429,430,431,432,433,434  
Seq#:2; Xaa Pos. 435,436,437,438,439,440,441,442,443,444,445,446,447